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| school-logo.gifMATHEMATICS MEDIUM TERM PLANYear group - ReceptionUnit: Partitioning |
| Development Matters Objectives30-50 months * Uses some number names accurately in play
* Recites no.s in order to 10
* Knows that no.s identify how many objects are in a set
* Separates a group of 3 or 4 objects in different ways, beginning to recognise that the total is still the same

40-60 months* counts actions or objects which cannot be moved
* counts objects to 10 and beginning to count beyond 10
* Counts up to 6 objects from a larger group
* counts an irregular arrangement of up to 10 objects
* Estimates how many is in a set and check by counting them
 | Learning pointsNeed to know the number names in orderTo know that we say one name for one objectsTo know that numbers/quantities can be split in different ways | Prerequisites skillsNeed to know the number names in orderCoordinate moving objects and saying numbers at the same timeTo know that numbers/quantities remain the same after being split or rearranged |
| Key Vocabulary * **Whole , part**
* **Partition, recombine**
* **Example – “Five is 1 and 4. Five is 2 and 3” etc**
* Numbers 0-10, then 10-20
* Count
* How many?
* How many altogether?
* How many ways can you split?
* How many ways can you make?
* Show me…
* How many different ways can you show me…?
 | Key images and resources* Lots of objects to count (toys, food, counters, bead strings)
* Objects/images to create multiple areas to separate objects into (a car park to separate groups of cars, tanks to separate groups of fish etc)
* Number tracks/lines
* Numicon
* Bead strings
* Bean bags to throw
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| Common misconceptions* The order of numbers (names)
* The need to say one number for one object/image/movement (1:1 correspondence)
* The last number that is said, is how many is in the set
* Objects can be arranged in different ways, but the total is still the same
* Numbers can be split in more than one way (ie, 10=5+5 can also be 10=2+7+1)
* When counting out from a larger group, you need to stop when you reach your given number
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| 1 | * To know that numbers can be partitioned in different ways (not only into two)
* Attaching a numeral to a set
* Add single digit numbers
 | * Start by partitioning small no.s and work your way up to 10.
* Use stories to give maths problems context – Use your imagination – Maths is everywhere!
* Make scenes/places (car parks for cars, blankets for picnic, cars for passengers etc) to show 2 or even 3 places for things to go/ways to split amounts. Relate to real life as much as possible. Eg, “5 children are going to the park. Some need to go in Mum’s car and some need to go in Dad’s car. How many could go with Mum and how many could go with Dad? Show me another way.”
* Children could throw bean bags into a hoop. When all bean bags have been thrown, count how many are in and how many are outside the hoop. Adult record on board and model saying “5 is 2 and 3” (if using 5 bean bags). Could also have 2 buckets to throw bean bags into.
* Use objects that are different on each side to show different ways of partitioning – red and yellow counters, painted pebbles, colouring in beans etc
* Paint ladybird pebbles – Could say “Each ladybird needs to have 6 dots, but each one has got to have a different no. on each side”
* Use soft cubes (rather than multilink) to help children show different ways to partition numbers by using two different colours – Eg, 3 red and 2 blue cubes to make 5. Then 1 red and 4 blue cubes to make 5.
* Use Numicon plates to show partitioning (Eg, If splitting 5, have a 5 plate on the bottom and place small numbers on top)
* Use partitioning grids to show how quantities can be split in different ways

Put this image out during continuous provision for children to experiment and play with using lots of different interesting objects (beans, animals, buttons, stones, gems, insects, people etc)* Have two tubes going into one pot and model saying parts and whole. Eg, “2 and 2 is four.”
* Partition in more than two ways (Eg, Five is 2 and 2 and 1)

**Extension activities*** Deepen understanding – Can you show me with something different? Numicon? Counters? Cubes? Etc
* Can you draw something to explain this to me?
* Can you make up a story with these numbers? (Maths story)
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| 2 | * To subitise numbers to 5
* Attaching a numeral to a set
 | * Have cards with dots and digits.

**4**Children can simple count the dots, or place small objects on top of the dots as they count them, then look at the number which represents that amount.* Have paper plates with different no.s on them and children need to place that many objects onto the plates. Could also use numbered pots to place objects into, or boxes with different no.s on to throw bean bags into
* Have images and no.s for children to match up. Eg,

<http://www.twinkl.co.uk/resource/t-n-847-1-20-number-and-quantity-matching-cards> * Children draw their own pictures to represent a number (flowers, cars, balloons, stick people etc)
* Children make their own ‘Spider number book’. On each page have a number, then the children use a Bingo stamper to make a circle on the page. Add 8 legs to each dot to make them into spiders.
* **Subitising –** Start with 3 first to build familiarity. Use images/cubes/counters of different colours to allow children to see how no.s are split into 2. Eg ‘Four is 2 and 2’
* Play dice and domino games to encourage subitising.
* Look at images together of quantities up to 5 in different arrangements and discuss what amounts they can see (Eg, when looking at three dots, they may see 3 straight away, or some many see a 2 and a 1, depending on the arrangement.)
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